

how to sew and quilt and raising her heifer named Lucy.

4-H's efforts to make science education enjoyable and interesting are noteworthy as barely 18 percent of 12th grade students in the United States are currently performing at or above the proficient level in science.

Similarly, only 32.4 percent of undergraduates in America are leaving college with a bachelor's degree in science or engineering, and a majority of scientists believe that the United States is falling behind in science and innovation.

In response to these sobering statistics, the National Academy of Sciences issued the timely report *Rising Above the Gathering Storm*, calling for an ambitious national program to address the need for increased math and science education.

According to the report, two important factors that America depends on to compete successfully in the global marketplace are: (1) a well-trained and technically competent workforce; and (2) the production of scientific and technological innovations.

Recognizing and promoting these goals is critical if America is going to remain a competitive leader in the global economy, and assistance from programs like 4-H will be vital in this effort.

I urge my colleagues to join me in my support for H. Res. 1390 to officially recognize October 8, 2008, as 4-H National Youth Science Day and encourage young people of all ages and backgrounds to pursue their interest in science and innovation.

Mr. HALL of Texas. Mr. Speaker, I yield back the balance of my time.

Ms. EDWARDS of Maryland. Mr. Speaker, I yield back the balance of my time.

The SPEAKER pro tempore (Mr. SALAZAR). The question is on the motion offered by the gentlewoman from Maryland (Ms. EDWARDS) that the House suspend the rules and agree to the resolution, H. Res. 1390.

The question was taken; and (two-thirds being in the affirmative) the rules were suspended and the resolution was agreed to.

A motion to reconsider was laid on the table.

## HEAVY DUTY HYBRID VEHICLE RESEARCH, DEVELOPMENT, AND DEMONSTRATION ACT OF 2008

Ms. EDWARDS of Maryland. Mr. Speaker, I move to suspend the rules and pass the bill (H.R. 6323) to establish a research, development, demonstration, and commercial application program to promote research of appropriate technologies for heavy duty plug-in hybrid vehicles, and for other purposes, as amended.

The Clerk read the title of the bill.

The text of the bill is as follows:

H.R. 6323

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,*

### SECTION 1. SHORT TITLE.

*This Act may be cited as the "Heavy Duty Hybrid Vehicle Research, Development, and Demonstration Act of 2008".*

### SEC. 2. ADVANCED HEAVY DUTY HYBRID VEHICLE TECHNOLOGY RESEARCH, DEVELOPMENT, DEMONSTRATION, AND COMMERCIAL APPLICATION PROGRAM.

(a) **ESTABLISHMENT.**—The Secretary shall establish a competitive research, development, demonstration, and commercial application program (referred to in this Act as the "program") to provide grants to applicants to carry out projects to advance research and development and to demonstrate technologies for advanced heavy duty hybrid vehicles.

(b) **APPLICATIONS.**—

(1) **IN GENERAL.**—The Secretary shall issue requirements for applying for grants under the program.

(2) **SELECTION CRITERIA.**—The Secretary shall establish selection criteria for awarding grants under the program. In evaluating applications, the Secretary shall—

(A) consider the ability of applicants to successfully complete both phases described in subsection (c); and

(B) give priority to applicants who are best able to—

(i) fill existing research gaps and achieve the greatest advances beyond the state of current technology; and

(ii) achieve the greatest reduction in fuel consumption and emissions.

(3) **PARTNERS.**—An applicant for a grant under this section may carry out a project in partnership with other entities.

(4) **SCHEDULE.**—

(A) **APPLICATION REQUEST.**—Not later than 180 days after the date of the enactment of this Act, the Secretary shall publish in the Federal Register, and elsewhere as appropriate, a request for applications to undertake projects under the program. Applications shall be due not later than 90 days after the date of such publication.

(B) **APPLICATION SELECTION.**—Not later than 90 days after the date on which applications for grants under the program are due, the Secretary shall select, through a competitive process, all applicants to be awarded a grant under the program.

(5) **NUMBER OF GRANTS.**—The Secretary shall determine the number of grants to be awarded under the program based on the technical merits of the applications received. The number of grants awarded under the program shall not be less than 3 or more than 7, and at least half of the grants awarded shall be for plug-in hybrid technology.

(6) **AWARD AMOUNTS.**—The Secretary shall award not more than \$3,000,000 to each recipient per year for each of the 3 years of the project.

(c) **PROGRAM REQUIREMENTS; TWO PHASES.**—Each grant recipient shall be required to complete two phases:

(1) **PHASE ONE.**—

(A) **IN GENERAL.**—In phase one, the recipient shall research and demonstrate advanced hybrid technology by producing or retrofitting one or more advanced heavy duty hybrid vehicles.

(B) **REPORT.**—Not later than 60 days after the completion of phase one, the recipient shall submit to the Secretary a report containing data and analysis of—

(i) the performance of each vehicle in carrying out the testing procedures developed by the Secretary under subparagraph (E);

(ii) the performance during such testing of each vehicle's components, including the battery, energy management system, charging system, and power controls;

(iii) the projected cost of each vehicle, including acquisition, operating, and maintenance costs; and

(iv) the emissions levels of each vehicle, including greenhouse gas levels.

(C) **TERMINATION.**—The Secretary may terminate the grant program with respect to the project of a recipient at the conclusion of phase one if the Secretary determines that the recipient cannot successfully complete the requirements of phase two.

(D) **TIMING.**—Phase one begins upon receipt of a grant under the program and has a duration of one year.

(E) **TESTING PROCEDURES.**—The Secretary shall develop standard testing procedures to be used by recipients in testing each vehicle. Such procedures shall include testing a vehicle's performance under typical operating conditions.

(2) **PHASE TWO.**—

(A) **IN GENERAL.**—In phase two, the recipient shall demonstrate advanced manufacturing processes and technologies by producing or retrofitting 50 advanced heavy duty hybrid vehicles.

(B) **REPORT.**—Not later than 60 days after the completion of phase two, the recipient shall submit to the Secretary a report containing—

(i) an analysis of the technological challenges encountered by the recipient in the development of the vehicles;

(ii) an analysis of the technological challenges involved in mass producing the vehicles; and

(iii) the manufacturing cost of each vehicle, the estimated sale price of each vehicle, and the cost of a comparable non-hybrid vehicle.

(C) **TIMING.**—Phase two begins at the conclusion of phase one and has a duration of two years.

(d) **RESEARCH ON VEHICLE USAGE AND ALTERNATIVE DRIVE TRAINS.**—The Secretary shall conduct research into alternative power train designs for use in advanced heavy duty hybrid vehicles. Such research shall compare the estimated cost, including operating and maintenance costs, emissions reductions, and fuel savings of each design with similar non-hybrid power train designs under the conditions in which these vehicles are typically used, including, for each vehicle type—

(1) number of miles driven;

(2) time spent with the engine at idle;

(3) horsepower requirements;

(4) length of time the maximum or near maximum power output of the vehicle is needed; and

(5) any other factors that the Secretary considers appropriate.

(e) **REPORT TO THE CONGRESS.**—Not later than 60 days after the Secretary receives the reports from grant recipients under subsection (c)(2)(B), the Secretary shall submit to the Congress a report containing—

(1) an identification of the grant recipients and a description of the projects to be funded;

(2) an identification of all applicants who submitted applications for the program;

(3) all data contained in reports submitted by grant recipients under subsection (c);

(4) a description of the vehicles produced or retrofitted by recipients in phase one and phase two of the project, including an analysis of the fuel efficiency of such vehicles; and

(5) the results of the research carried out under subsections (d) and (h).

(f) **COORDINATION AND NONDUPLICATION.**—To the maximum extent practicable, the Secretary shall coordinate, and not duplicate, activities under this Act with other programs and laboratories of the Department of Energy and other Federal research programs.

(g) **COST SHARING.**—Section 988 of the Energy Policy Act of 2005 (42 U.S.C. 16352) shall apply to the program established pursuant to this section.

(h) **ELECTRICAL GRID RESEARCH PILOT PROGRAM.**—The Secretary shall establish a pilot program through the National Laboratories and Technology Centers of the Department of Energy to research and test the effects on the domestic electric power grid of the widespread use of plug-in hybrid vehicles, including plug-in hybrid vehicles that are advanced heavy duty hybrid vehicles.

(i) **DEFINITIONS.**—For purposes of this section:

(1) **ADVANCED HEAVY DUTY HYBRID VEHICLE.**—The term "advanced heavy duty hybrid vehicle" means a vehicle with a gross weight between 14,000 pounds and 33,000 pounds that is fueled, in part, by a rechargeable energy storage system.

(2) **GREENHOUSE GAS.**—The term “greenhouse gas” means—

- (A) carbon dioxide;
- (B) methane;
- (C) nitrous oxide;
- (D) hydrofluorocarbons;
- (E) perfluorocarbons; or
- (F) sulfur hexafluoride.

(3) **PLUG-IN HYBRID.**—The term “plug-in hybrid” means a vehicle fueled, in part, by electrical power that can be recharged by connecting the vehicle to an electric power source.

(4) **RETROFIT.**—The term “retrofit” means the process of creating an advanced heavy duty hybrid vehicle by converting an existing, fuel-powered vehicle.

(5) **SECRETARY.**—The term “Secretary” means the Secretary of Energy.

(j) **AUTHORIZATION OF APPROPRIATIONS.**—

(1) There are authorized to be appropriated to the Secretary \$16,000,000 for each of fiscal years 2009 through 2011 to carry out this section.

(2) Of the funds authorized under paragraph (1), not more than \$1,000,000 per fiscal year may be used for—

- (A) carrying out the studies required under subsection (d);
- (B) carrying out the pilot program required under subsection (h); and
- (C) the administration of the program.

### **SEC. 3. EXPANDING RESEARCH IN HYBRID TECHNOLOGY FOR LARGE VEHICLES.**

Subsection (g)(1) of the United States Energy Storage Competitiveness Act of 2007 (enacted as section 641(g)(1) of the Energy Independence and Security Act of 2007 (42 U.S.C. 17231(g)(1))) is amended by inserting “vehicles with a gross weight over 16,000 pounds,” before “stationary applications”.

The SPEAKER pro tempore. Pursuant to the rule, the gentlewoman from Maryland (Ms. EDWARDS) and the gentleman from Texas (Mr. HALL) each will control 20 minutes.

The Chair recognizes the gentlewoman from Maryland.

GENERAL LEAVE

Ms. EDWARDS of Maryland. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days to revise and extend their remarks and to include extraneous material on H.R. 6323, the bill now under consideration.

The SPEAKER pro tempore. Is there objection to the request of the gentlewoman from Maryland?

There was no objection.

Ms. EDWARDS of Maryland. Mr. Speaker, I yield myself such time as I may consume.

It is my pleasure to put before the House today H.R. 6323 by Mr. JIM SENSENBRENNER, ranking member of the Investigations and Oversight Subcommittee of the Science and Technology Committee. By enhancing the Department of Energy’s research program in heavy-duty hybrid trucks, this bill draws much-needed focus to a very critical component of the transportation sector, commercial trucks.

We are learning the hard way just how much the health of our economy can hinge on the commercial transportation sector. Skyrocketing fuel costs translate directly into higher prices for consumers since the large majority of products we consume or use, from food to building materials, are at some point transported by medium to heavy-duty truck. We must take measures to

ensure that this remains a vibrant economic sector.

The heavy-duty truck sector also plays a role in our energy security and environmental health. Approximately one-fourth of the Nation’s fuel use and the majority of transportation-based emissions can be attributed to heavy-duty trucks. One large tractor-trailer rig uses as much fuel annually as 48 passenger vehicles. We can see how even small improvements in their efficiency can have a substantial impact.

As with passenger vehicles, hybrid technologies hold the greatest promise for improving the fuel economy and emissions of commercial trucks, but considerable research and development is required to put these technologies on the road. While the technological requirements for hybrid trucks are very different, advances in this sector can benefit the domestic automotive sector as a whole by invaluable lessons learned in designing and manufacturing these systems.

Mr. SENSENBRENNER and his staff have worked closely with the majority to ensure that grants under this program explore a wide range of hybrid technologies and applications. Mr. SENSENBRENNER’s bill represents a commonsense approach to chipping away at our energy challenge.

I believe this is an important piece of legislation in the large and complex puzzle that is our transportation sector, and I urge my colleagues to support it.

Mr. Speaker, I reserve the balance of my time.

Mr. HALL of Texas. Mr. Speaker, I rise today in support of H.R. 6323, the Heavy-Duty Hybrid Vehicle Research, Development, and Demonstration Act of 2008, sponsored by my good friend, Congressman SENSENBRENNER.

While most of the attention of hybrid vehicles has been focused on passenger cars, large, heavy-duty hybrid trucks have received limited funds for Federal research and development programs. However, because trucks generally use much more fuel per year than passenger cars, the overall potential savings are very significant.

The Environmental Protection Agency estimates that a typical delivery truck using a hydraulic hybrid system could save up to 1,000 gallons of fuel per year. In light of the proposed savings in fuel use and resulting emissions reduction, the Heavy-Duty Hybrid Vehicle Research, Development, and Demonstration Act of 2008 aims to encourage the advancement of the needed technology to bring about these savings.

The bill directs the Secretary of Energy to establish a grant program for the development of advanced heavy-duty hybrid vehicles. The grants are rewarded in two phases. In phase one, grant recipients are required to build or retrofit one or more advanced heavy-duty hybrid vehicles and to collect required data. In phase two, grant recipients are required to produce and/

or retrofit 50 heavy-duty hybrid vehicles, collect required data and report on the results.

In addition, the bill directs the secretary to conduct a study of alternative power train designs for use in advanced heavy-duty hybrid vehicles. Further, it directs the secretary to establish a pilot program through DOE’s National Laboratories to research and test the effects on the domestic electric power grid of the widespread use of plug-in hybrid vehicles, including heavy-duty plug-in hybrid trucks.

Mr. Speaker, H.R. 6323 passed out of the Committee on Science and Technology with bipartisan support and with input from both sides of the aisle. I thank Congressman SENSENBRENNER for introducing the bill and Chairman GORDON for helping us to advance it. I think it makes good sense, and it certainly deserves passage.

Ms. EDWARDS of Maryland. Mr. Speaker, I reserve the balance of my time.

Mr. HALL of Texas. Mr. Speaker, I yield 5 minutes to the gentlewoman from North Carolina (Ms. FOXX).

Ms. FOXX. I thank my colleague from Texas for yielding.

We are talking about the need to improve our ability to use the energy that we have in this country and certainly to get additional energy, and I want to call to the attention of people who are paying attention to this debate something that has come out in the press which we Republicans have been saying for a long time, and it has to do with the no-energy bill that passed the House last week.

I am going to hit some high spots, and, Mr. Speaker, then I would like to put the rest of the material into the RECORD.

Mr. Speaker, the Boston Globe op-ed by Jeff Jacoby, 9/21/08, the title, “Speaker Pelosi’s Bill, a Feint of Supporting Offshore Exploration That Would Actually Make Drilling More Difficult.”

“The bill permanently bans all drilling within 50 miles of the U.S. companies, which just happens to where most of the recoverable oil and gas reserves are.”

The Wall Street Journal editorial, “Pelosi’s Drilling Ruse.”

“The sudden pro-drilling makeover of the Pelosi Democrats has always had an air, a gale, really, of election-year convenience, and the House proved it Tuesday by passing an energy bill that would put any bunko man to shame. This confidence trick won’t expand domestic oil and gas supplies even a bit. The real game was to give vulnerable Democrats political cover by letting them vote for more offshore drilling while making more drilling all but impossible, thus appeasing the party’s green wing. The House bill shows that the Pelosi Democrats simply aren’t serious about expanding domestic energy supplies.” Wall Street Journal, 9/19/08.

The Oregonian from 9/17/08. This is a column by David Reinhard. “Nancy Pelosi’s Drilling Charade.”

"Pelosi's alternative energy choice? Snake oil. How lame is the energy bill that Speaker Nancy Pelosi had House Democrats pass through the House on Tuesday? Louisiana Senator Mary Landrieu said before the vote that Pelosi's handiwork would be 'dead on arrival' in the Senate."

The title of that article is "Pelosi's Bill is an Obvious Charade" and appeared 9/17/08.

Some other editorials. The Augusta Chronicle. "Nothing. That's what this Congress came up with after months of high fuel costs and concern over our dependence on foreign oil and after a summer recess in which Senators and Representatives could have listened to the American people but did not. Congress came up with nothing, a fake energy exploration that would only weaken America."

The title of that was "They've Blown a Ruse; Congress Fails Yet Again." Augusta Chronicle editorial, September 21, 2008.

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Another one, the Northwest Florida Daily News editorial, "Don't be fooled by House Democrats' disingenuous bill to lift the Federal Government's ban on offshore drilling . . . It's a bill intended to give voters the impression that Democrats favor offshore drilling—while maintaining their opposition to it." That's in an article called "Drilling for Political Advantage," September 20, 2008.

It is refreshing to see that some of our newspaper folks are paying attention to what's going on in the House of Representatives and calling attention to it to the American public. Republicans did that all the month of August, calling attention to the fact that the Democrats refused to do anything to help hard-working Americans by lowering the price of gasoline. The American people deserve better than this.

I am going to give one more quote from the Wall Street Journal. "This confidence trick won't expand domestic oil-and-gas supplies even a bit . . . As Congress runs down the clock for this term, the likelihood of reaching some grand pre-election energy bargain is vanishing fast. The House bill shows that the Pelosi Democrats aren't serious about expanding domestic energy supplies." That, again, was in the Wall Street Journal, September 19, 2008.

Republicans have a commonsense plan, it's called the American Energy Act. We believe in all of the above, conservation, alternatives, drilling for additional supply, using the money that would come from those leases to provide the alternative.

"Coming next week from Nancy Pelosi and the House Democrats: legislation that allows oil and gas drilling on the moon! The bill would have the same result as energy legislation passed Tuesday—no increase in domestic oil production—and it certainly wouldn't be any less cynical \* \* \* The Democrats' intent here is so transparent it's embarrassing. Americans know the country needs to use all

its resources to power the future and speed economic recovery. That includes offshore oil drilling—where the oil is." ("Let's Drill for Oil—Where There Isn't Any," Las Vegas Review Journal Editorial, September 19, 2008)

"Pelosi, who opposes new drilling for American oil, allowed the vote only because this summer Democrats were on the wrong side of offshore exploration, which seven in 10 Americans favor. Unfortunately, the House-passed bill is nothing more than a fig leaf for Democrats as they prepare to face frustrated voters in November." ("Same Old Drill: 'No-Energy' Bill Risks Voter Wrath," The Oklahoman Editorial, September 19, 2008)

"This way, Democrats can claim to be opening the way to offshore drilling \* \* \* under the restrictions included in the bill, no real drilling is likely to happen." ("Drilling Bill Lacks Substance," Buffalo News Editorial, September 22, 2008)

"If House Democrats were looking to give Americans relief at the gas pump in the energy legislation passed on Sept. 16, they failed. In a jarring twist, the legislation offers a solution and then negates it. If Americans were hoping for at least half a loaf from this legislation, they were disappointed." ("Energy Legislation Less Than Half a Loaf," Reading Eagle Editorial, September 20, 2008)

Ms. EDWARDS of Maryland. Mr. Speaker, I yield myself such time as I may consume.

The bill we are considering now is a step toward energy for the future, toward investing in the kinds of technologies that will transform where we are today on energy to be where we need to be to complete in the global marketplace.

I am very pleased to be here in support of Mr. SENSENBRENNER's bill that is a commonsense approach to making an investment in the kind of electric hybrid technology that will transform our commercial trucking sector so that we make the kinds of investments in energy that we have to make today to compete in tomorrow's marketplace.

Mr. Speaker, I reserve the balance of my time.

Mr. HALL of Texas. Mr. Speaker, I have no further requests for time, and I yield back the balance of my time.

Ms. EDWARDS of Maryland. Mr. Speaker, I yield back the balance of my time.

The SPEAKER pro tempore. The question is on the motion offered by the gentlewoman from Maryland (Ms. EDWARDS) that the House suspend the rules and pass the bill, H.R. 6323, as amended.

The question was taken.

The SPEAKER pro tempore. In the opinion of the Chair, two-thirds being in the affirmative, the ayes have it.

Mr. HALL of Texas. Mr. Speaker, I object to the vote on the ground that a quorum is not present and make the point of order that a quorum is not present.

The SPEAKER pro tempore. Pursuant to clause 8 of rule XX and the Chair's prior announcement, further proceedings on this motion will be postponed.

The point of no quorum is considered withdrawn.

## HONORING THE 50TH ANNIVERSARY OF THE SUCCESSFUL DEMONSTRATION OF THE FIRST INTEGRATED CIRCUIT

Ms. EDWARDS of Maryland. Mr. Speaker, I move to suspend the rules and agree to the resolution (H. Res. 1471) honoring the 50th anniversary of the successful demonstration of the first integrated circuit and its impact on the electronics industry.

The Clerk read the title of the resolution.

The text of the resolution is as follows:

### H. RES. 1471

Whereas in May 1958 Jack St. Clair Kilby joined Texas Instruments because it was the only company that would permit him to work full-time on miniaturization of electronics;

Whereas just four months later on September 12, 1958, Jack Kilby demonstrated the first integrated circuit by combining a transistor, several resistors, and a capacitor on a half inch piece of germanium in an attempt to reduce transistor costs;

Whereas Jack Kilby spent his career at Texas Instruments, a productive engineering career that resulted in over 60 patents and seminal inventions, including the electronic calculator;

Whereas Jack Kilby received the National Medal of Science in 1969 and the National Medal of Technology in 1990, and shared the Nobel Prize in Physics in 2000, for his invention of and contributions to the development of the integrated circuit;

Whereas during Kilby's lifetime integrated circuits provided a million fold decrease in the costs of electronics;

Whereas Kilby's achievement revolutionized electronics and permitted it to grow to over \$1,500,000,000,000 in annual sales world wide;

Whereas the integrated circuit revolutionized computing and made possible getting a man to the moon and modern space exploration;

Whereas the integrated circuit led to a revolution in communications, transportation, and medical industries; and

Whereas the future will inevitably bring equally far-reaching integrated circuit-based advances in many fields: Now, therefore, be it

*Resolved*, That the House of Representatives—

(1) recognizes and honors the research and development efforts of Jack Kilby and his contemporaries, who by inventing and perfecting the integrated circuit brought us modern electronics and changed the world; and

(2) recognizes the importance of continued advancements in electronics to the well-being of America.

The SPEAKER pro tempore. Pursuant to the rule, the gentlelady from Maryland (Ms. EDWARDS) and the gentleman from Texas (Mr. HALL) each will control 20 minutes.

The Chair recognizes the gentlewoman from Maryland.

### GENERAL LEAVE

Ms. EDWARDS of Maryland. Mr. Speaker, I ask unanimous consent that all Members may have 5 legislative days to revise and extend their remarks and to include extraneous material on House Resolution 1471, the resolution now under consideration